

Claims

I claim:

1. A data system comprising:  
an elastomeric product having a receiving portion  
cured therein;  
a transponder circuit comprising a processor and  
signal antenna for interaction with a remote  
electrical device; and  
the transponder circuit sealed into said receiving  
portion.

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2. The data system as in claim 1 further comprising:  
an interrogator unit for signaling the transponder  
to receive or transmit product information.

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3. The data system as in claim 1 wherein the  
transponder circuit comprises:  
a memory portion for storing product information;  
a receiver for receiving a signal from the  
interrogator; and  
a transmitter for accessing and transmitting  
information stored in the memory portion.

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4. The data system as in claim 1, wherein the  
transponder is sealed into the receiving portion by  
an adhesive.

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5. The data system as in claim 1, wherein the receiving  
portion further comprise a piece that binds to an  
elastomeric on a single side during a vulcanization  
process.

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6. The data system as in claim 5, wherein the piece comprises a flexible and non-metallic material.

7. A sleeve comprising:  
5 an elastomeric body;  
a receiving portion formed in the elastomeric body;  
and  
the receiving portion having a shape suitable for  
receiving an electronic data logger.

10 8. The sleeve as in claim 7, wherein the receiving portion further comprises:  
a material bondable only to the elastomeric.

15 9. The sleeve as in claim 8, wherein the electronic data logger further comprises:  
a transponder sealed within the receiving portion after a vulcanization of the elastomeric body; and  
the transponder comprising a data receiving portion, a data storage portion and a data transmitting portion.

20 10. The sleeve as in claim 9, wherein the transponder is moveable within the receiving portion.

25 11. The sleeve as in claim 10, wherein the transponder comprises a thickness less than 2mm.

30 12. The sleeve as in claim 10 further comprising tensile cords wound in the elastomeric body in a longitudinal direction.

13. The sleeve as in claim 10, wherein the receiving portion is sealable.

14. The sleeve as in claim 13, wherein the receiving portion is radially outward from a tensile cord.

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15. The sleeve as in claim 14 further comprising a toothed profile.

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16. A method of manufacturing spun material comprising the steps of:

using a sleeve having a pocket for moveably containing an electronic data logging device; and transmitting a data to the electronic data logging device as part of a winding process for forming a spun material coil; and receiving a data from the electronic data logging device.

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17. The method as in claim 16 further comprising the step of:

storing the data in a memory portion of the electronic data logging device.

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18. The method as in claim 17 further comprising the step of removing the sleeve from a spun material coil.

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19. The method as in claim 17 further comprising the step of sealing the pocket.

20. The method as in claim 16 further comprising the step of mounting the electronic data logger device to a flexible non-metallic material.

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